Abstract

This memo defines a [XML] Document Type Definition (DTD) that corresponds to the vCard, electronic business card format defined by [VCARD]. This DTD provides equivalent functionality to the standard format defined by [VCARD]. Documents structured in accordance with this DTD may also be known as 'XML vCard' documents.

The mailing list for discussion of this memo is 'ietf-vcard-xml@imc.org'. Send an email to 'ietf-vcard-xml-request@imc.org' with the message 'SUBSCRIBE' to add your email address to this mailing list. Send an email to 'ietf-vcard-xml-request@imc.org' with the message 'UNSUBSCRIBE' to remove your email address from this mailing list.

The key words 'MUST', 'MUST NOT', 'REQUIRED', 'SHALL', 'SHALL NOT', 'SHOULD', 'SHOULD NOT', 'RECOMMENDED', 'MAY' and 'OPTIONAL' in this document are to be interpreted as described in [RFC 2119].
Table of Contents

1. Introduction........................................................ 3
2. vCard XML Document Type Definition......................... 3
3. vCard v3.0 Notation............................................... 11
4. Example Usage.................................................... 11
   4.1 Simple vCard .............................................. 11
   4.2 vCard with non-standard extension .................... 11
   4.3 vCard with photo element ............................... 12
   4.4 vCard with an agent element ............................. 13
   4.5 Document with multiple vCards .......................... 13
   4.6 Document utilizing vCard namespace .................. 13
   4.7 XML document reference to a non-XML vCard ........ 14
5. Namespace.......................................................... 14
6. Acknowledgments................................................ 15
7. Security Considerations....................................... 15
8. Bibliography..................................................... 16
9. Author’s Address................................................ 16
10. Full Copyright Statement................................. 17
1. Introduction

The Extended Markup Language (XML) as defined in [XML] is gaining widespread attention as a "web friendly" syntax for encoding and exchanging documents and data on the Internet. This interest includes requests for and discussion of possible document type definitions (DTD) for IETF standards such as the vCard, electronic business card format defined by [VCARD].

This XML DTD is in no way intended to create a separate definition for the vCard schema. The sole purpose for this memo is to define an alternative XML encoding for the format defined by [VCARD].

The vCard DTD does not introduce any capability not expressible in the format defined by [VCARD]. However, an attempt has been made to leverage the capabilities of the XML syntax to better articulate the original intent of the vCard authors. For example, the notation attribute is used to declare the strong data typing intended for each of the properties in a vCard. It is the responsibility of the XML application supporting this DTD to make sure that the content information is formatted consistently with the notation declared for each element.

The vCard DTD promotes a number of vCard properties into attributes on the "vCard" element. This has been done to express these properties as "global attributes" for the vCard object, as a whole. For example, the VERSION, REV, PRODID, UID, CLASS properties have been "mapped" into attributes on the vCard object.

Binary content in the PHOTO, LOGO, SOUND and KEY properties may either be specified through an external entity reference to the non-XML image or sound content or may be included in the content after first encoding the binary information using the BASE64 encoding of [RFC 2146].

XML namespaces are described in [NSPACE]. A namespace is a collection of names identified by a URI. This specification includes the definition for a default namespace for the vCard DTD elements. A vCard application that does not support namespaces MAY omit the namespace declaration in the vCard definition.

It is expected that the DTD defined in this memo will not normally be included with vCards that are distributed. Instead, this DTD will be externally referenced. This means that such Cards will be well-formed but not valid, as defined in [XML].

2. vCard XML Document Type Definition

The following DTD conforms to XML version 1.0, as specified by [XML].

```xml
<?xml version="1.0" encoding="UTF-8"?>
<!-- ******************************************** -->
```

Dawson, Hoffman 3 Expires May 1999
<!-- Entity declarations and references -->
<!-- ************************************************ -->

<!ENTITY % attr.lang "
  lang CDATA #IMPLIED
">
<!-- lang value is a valid RFC 1766 language string -->

<!ENTITY % attr.del "
  del.type NMTOCKENS 'INTL POSTAL PARCEL WORK'
">
<!-- Valid name tokens are "INTL", "DOM", "POSTAL", "PARCEL"
   "WORK", "HOME" -->

<!ENTITY % attr.tel "
  tel.type NMTOCKENS 'VOICE'
">
<!-- Valid name tokens are "HOME", "WORK", "MSG", "PREF"
   "VOICE", "FAX", "CELL", "VIDEO", "PAGER", "BBS", "MODEM"
   "CAR", "ISDN", "PCS" -->

<!ENTITY % attr.email "
  email.type NMTOCKENS 'INTERNET'
">
<!-- Valid name tokens are "INTERNET", "X.400", "PREF" -->

<!ENTITY % attr.img "
  img.type CDATA #REQUIRED
">
<!-- img.type value is an IANA registered image type -->

<!ENTITY % attr.aud "
  aud.type CDATA #REQUIRED
">
<!-- aud.type value is an IANA registered audio type -->

<!-- The mandatory properties in any vCard -->
<!ENTITY % prop.man "
  (fn, n)
">

<!-- Identification properties -->
<!ENTITY % prop.id "
  (nickname | photo | bday)
">

<!-- Delivery addressing properties -->
<!ENTITY % prop.del "
  (adr | label)
">

<!-- Telecommunications addressing properties -->
<!ENTITY % prop.tel "
  (tel | email | mailer)
" -->

<!-- Geographical properties -->
<!ENTITY % prop.geo "
   (tz | geo) -->

<!-- Organizational properties -->
<!ENTITY % prop.org "
   (title | role | logo | agent | org) -->

<!-- Explanatory properties -->
<!ENTITY % prop.exp "
   (categories | note | sort | sound | url) -->

<!-- Security properties -->
<!ENTITY % prop.sec "
   (key) -->

<!-- The optional properties in a vCard -->
<!ENTITY % prop.opt "
   %prop.id; | %prop.del; | %prop.tel; | %prop.geo; |
   %prop.org; | %prop.exp; | %prop.sec; -->

<!-- **************************************************** -->
<!-- vCard value type notation declarations -->
<!-- **************************************************** -->

<!NOTATION URI PUBLIC "-//IETF/vCard version 3.0//NOTATION Value Type URI//EN">

<!NOTATION TEXT PUBLIC "-//IETF/vCard version 3.0//NOTATION Value Type Text//EN">

<!NOTATION DATE PUBLIC "-//IETF/vCard version 3.0//NOTATION Value Type Date//EN">

<!NOTATION TIME PUBLIC "-//IETF/vCard version 3.0//NOTATION Value Type Time//EN">

<!NOTATION DATE-TIME PUBLIC "-//IETF/vCard version 3.0//NOTATION Value Type Date-Time//EN">

<!NOTATION INTEGER PUBLIC "-//IETF/vCard version 3.0//NOTATION Value Type Integer//EN">

<!NOTATION BOOLEAN PUBLIC "-//IETF/vCard version 3.0//NOTATION Value Type Boolean//EN"
<!NOTATION FLOAT PUBLIC "-//IETF/vCard version 3.0//NOTATION Value Type Float//EN">

<!NOTATION X-NAME PUBLIC "-//IETF/vCard version 3.0//NOTATION Value Type X-Name//EN">

<!NOTATION BINARY PUBLIC "-//IETF/vCard version 3.0//NOTATION Value Type Binary//EN">

<!NOTATION VCARD PUBLIC "-//IETF/vCard version 3.0//NOTATION Value Type vCard//EN">

<!NOTATION PHONE-NUMBER PUBLIC "-//IETF/vCard version 3.0//NOTATION Value Type Phone-Number//EN">

<!NOTATION UTC-OFFSET PUBLIC "-//IETF/vCard version 3.0//NOTATION Value Type UTC-Offset//EN">

<!-- ******************************************** -->
<!-- vCard element and attribute declarations -->
<!-- ******************************************** -->

<!ELEMENT vCardSet (vCard*)>
<!ATTLIST vCardSet name CDATA #IMPLIED>

<!ELEMENT vCard (%prop.man;, (%prop.opt;)*)>  
<!ATTLIST vCard
%attr.lang;
version CDATA #REQUIRED
rev CDATA #IMPLIED
uid CDATA #IMPLIED
prodid CDATA #IMPLIED
class (PUBLIC | PRIVATE | CONFIDENTIAL) "PUBLIC"
value NOTATION (VCARD) #IMPLIED>

<!-- version - Must be "3.0" if document conforms to this spec -->
<!-- rev - ISO 8601 formatted date or date/time string -->
<!-- uid - UID associated with the object described by the vCard -->
<!-- prodid - ISO 9070 FPI for product that generated vCard -->
<!-- class - Security classification for vCard information -->

<!-- Identification properties -->
<!-- Element and attribute declarations -->
<!ELEMENT fn (#PCDATA)>
<!ATTLIST fn
%attr.lang;
value NOTATION (TEXT) #IMPLIED>

<!ELEMENT n (family*, given*, other*, prefix*, suffix*)>
<!ELEMENT family (#PCDATA)>  
<!ATTLIST family  
  %attr.lang;  
  value NOTATION (TEXT) #IMPLIED>  

<!ELEMENT given (#PCDATA)>  
<!ATTLIST given  
  %attr.lang;  
  value NOTATION (TEXT) #IMPLIED>  

<!ELEMENT other (#PCDATA)>  
<!ATTLIST other  
  %attr.lang;  
  value NOTATION (TEXT) #IMPLIED>  

<!ELEMENT prefix (#PCDATA)>  
<!ATTLIST prefix  
  %attr.lang;  
  value NOTATION (TEXT) #IMPLIED>  

<!ELEMENT suffix (#PCDATA)>  
<!ATTLIST suffix  
  %attr.lang;  
  value NOTATION (TEXT) #IMPLIED>  

<!ELEMENT nickname (#PCDATA)>  
<!ATTLIST nickname  
  %attr.lang;  
  value NOTATION (TEXT) #IMPLIED>  

<!ELEMENT photo (extref | b64bin)>  
<!ATTLIST photo  
  %attr.img;>  

<!-- extref holds a reference to an external entity that -->  
<!-- has the photo. b64bin holds the inline BASE64 encoded -->  
<!-- binary data for the photo as defined in RFC 2045. -->  

<!ELEMENT extref EMPTY>  
<!ATTLIST extref  
  uri ENTITY #REQUIRED>  

<!ELEMENT b64bin (#PCDATA)>  
<!ATTLIST b64bin value NOTATION (BINARY) #IMPLIED>  

<!ELEMENT bday (#PCDATA)>  
<!ATTLIST bday value NOTATION (DATE | DATE-TIME) #IMPLIED>  

<!-- bday holds a ISO 8601 formatted date or date/time string -->  
<!-- value MUST be "DATE" for a date string and "DATE-TIME" for -->  
<!-- date/time string. -->  

<!-- Delivery addressing properties -->  
<!-- Element and attribute declarations -->
<!ELEMENT adr (pobox*, extadd*, street*, locality*, region*, pcode*, country*)>
<!ATTLIST adr %attr.del; >

<!ELEMENT pobox (#PCDATA)>
<!ATTLIST pobox %attr.lang; value NOTATION (TEXT) #IMPLIED>

<!ELEMENT extadd (#PCDATA)>
<!ATTLIST extadd %attr.lang; value NOTATION (TEXT) #IMPLIED>

<!ELEMENT street (#PCDATA)>
<!ATTLIST street %attr.lang; value NOTATION (TEXT) #IMPLIED>

<!ELEMENT locality (#PCDATA)>
<!ATTLIST locality %attr.lang; value NOTATION (TEXT) #IMPLIED>

<!ELEMENT region (#PCDATA)>
<!ATTLIST region %attr.lang; value NOTATION (TEXT) #IMPLIED>

<!ELEMENT pcode (#PCDATA)>
<!ATTLIST pcode %attr.lang; value NOTATION (TEXT) #IMPLIED>

<!ELEMENT country (#PCDATA)>
<!ATTLIST country %attr.lang; value NOTATION (TEXT) #IMPLIED>

<!ELEMENT label (#PCDATA | br)*> 
<!ATTLIST label %attr.del; %attr.lang; value NOTATION (TEXT) #IMPLIED>

<!ELEMENT br EMPTY>
<!-- Signifies a new line in the content information -->

<!-- Telecommunications addressing properties -->
<!-- Element and attribute declarations -->

<!ELEMENT tel (#PCDATA)>
<!-- A valid ITU standard telephone numbers string. -->
<!ATTLIST tel
  %attr.tel;
  value NOTATION (PHONE-NUMBER) #IMPLIED>

<!ELEMENT email (#PCDATA)>
<!ATTLIST email
  %attr.email;
  value NOTATION (TEXT) #IMPLIED>

<!ELEMENT mailer (#PCDATA)>
<!ATTLIST mailer
  %attr.lang;
  value NOTATION (TEXT) #IMPLIED>

<!-- Geographical properties -->
<!-- Element and attribute declarations -->

<!ELEMENT tz (#PCDATA)>
<!ATTLIST tz value NOTATION (UTC-OFFSET) #IMPLIED>
<!-- tz holds an ISO 8601 formatted time zone offset. -->

<!ELEMENT geo (lat, lon)>

<!ELEMENT lat (#PCDATA)>
<!ATTLIST lat value NOTATION (FLOAT) #IMPLIED>
<!-- A decimal degree float number to 6 decimal places -->

<!ELEMENT lon (#PCDATA)>
<!ATTLIST lon value NOTATION (FLOAT) #IMPLIED>
<!-- A decimal degree float number to 6 decimal places -->

<!-- Organizational properties -->
<!-- Element and attribute declarations -->

<!ELEMENT title (#PCDATA)>
<!ATTLIST title
  %attr.lang;
  value NOTATION (TEXT) #IMPLIED>

<!ELEMENT role (#PCDATA)>
<!ATTLIST role
  %attr.lang;
  value NOTATION (TEXT) #IMPLIED>

<!ELEMENT logo (extref | b64bin)>
<!ATTLIST logo
  %attr.img;>

<!-- extref holds a reference to an external entity that -->
<!-- has the logo. b64bin holds the inline BASE64 encoded -->
<!-- binary data for the logo as defined in RFC 2045. -->

<!ELEMENT agent (vCard | extref)>
<!-- value MUST be "VCARD" for a "vCard" content model and -->
<!-- "URI" for a "extref" content model. -->

<!ELEMENT org (orgnam, orgunit*)>
<!ELEMENT orgnam (#PCDATA)>
<!ATTLIST orgnam
  %attr.lang;
  value NOTATION (TEXT) #IMPLIED>
<!ELEMENT orgunit (#PCDATA)>
<!ATTLIST orgunit
  %attr.lang;
  value NOTATION (TEXT) #IMPLIED>

<!-- Explanatory properties -->
<!-- Element and attribute declarations -->

<!ELEMENT categories (item)>
<!ELEMENT item (#PCDATA)>
<!ATTLIST item
  %attr.lang;
  value NOTATION (TEXT) #IMPLIED>
<!ELEMENT note (#PCDATA | br)>
<!ATTLIST note
  %attr.lang;
  value NOTATION (TEXT) #IMPLIED>
<!ELEMENT sort (#PCDATA)>
<!ATTLIST sort
  %attr.lang;
  value NOTATION (TEXT) #IMPLIED>
<!ELEMENT sound (extref | b64bin)>
<!ATTLIST sound
  %attr.aud;>

<!-- extref holds a reference to an external entity that -->
<!-- has the sound. b64bin holds the inline BASE64 encoded -->
<!-- binary data for the sound as defined in RFC 2045. -->

<!ELEMENT url EMPTY>
<!ATTLIST url
  uri ENTITY #REQUIRED>
<!-- url holds a RFC 1738 formatted Uniform Resource Locator -->

<!-- Security properties -->
<!-- Element and attribute declarations -->

<!ELEMENT key (extref | b64bin)>
<!-- extref holds a reference to an external entity that -->
3. vCard v3.0 Notation

The formal public identifier (FPI) for the DTD described in this specification is "-//IETF//DTD vCard v3.0//EN".

A XML document can reference an external non-XML entity containing a vCard v3.0 object, as specified by [VCARD]. The vCard v3.0 object, while encoded in the standard, non-XML format can be referenced in an external entity reference that identifies the [VCARD] format in a notation declaration. The [VCARD] format is identified by the formal public identifier "-//IETF//NONSGML vCard version 3.0//EN", as defined in [FPI].

4. Example Usage

4.1 Simple vCard

The following is a simple example of a XML document using this DTD.

```xml
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE vCard PUBLIC "-//IETF//DTD vCard v3.0//EN">
<vCard version="3.0">
  <fn>Frank Dawson</fn>
  <n>
    <family>Dawson</family>
    <given>Frank</given>
  </n>
  <tel tel.type="WORK MSG PREF">+1-617-693-8728</tel>
  <tel tel.type="WORK MSG">+1-919-676-9515</tel>
  <adr del.type="POSTAL PARCEL WORK">
    <street>6544 Battleford Drive</street>
    <locality>Raleigh</locality> <region>NC</region>
    <pcode>27613-3502</pcode> <country>US</country>
  </adr>
  <label del.type="POSTAL PARCEL WORK">6544 Battleford Drive
    Raleigh,NC 27613-3502<br/>US</label>
  <email email.type="INTERNET">Frank_Dawson@Lotus.com</email>
</vCard>
```

4.2 vCard with non-standard extension

The following is an example of vCard that also includes a non-standard extension.

```xml
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE vCard PUBLIC "-//IETF//DTD vCard v3.0//EN"
  [<!ELEMENT vCard (%prop.man;, (%prop.opt; | x-lotus-blood-type)+)>]>
```
<vCard
   version="3.0"
   prodid="-//HandGen//NONSGML vGen v1.0//EN">
   <fn>Frank Dawson</fn>
   <n>
      <family>Dawson</family>
      <given>Frank</given>
   </n>
   <tel tel.type="WORK MSG">+1-617-693-8728</tel>
   <x-lotus-blood-type>O+</x-lotus-blood-type>
</vCard>

4.3 vCard with photo element

The following is an example of a vCard that also includes an external reference to a photo. Similar structure would be used to represent a vCard with an external reference to a logo, sound or public key/certificate.

<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE vCard PUBLIC "-//IETF//DTD vCard v3.0//EN">
<!ENTITY photo1 SYSTEM "http://host.com/pub/photos/frd-photo.jpg" NDATA JPEG>

<vCard
   version="3.0"
   prodid="-//HandGen//NONSGML vGen v1.0//EN">
   <fn>Frank Dawson</fn>
   <n>
      <family>Dawson</family>
      <given>Frank</given>
   </n>
   <tel tel.type="WORK MSG">+1-617-693-8728</tel>
   <photo img.type="JPEG"><extref uri="photo1" /></photo>
   <email email.type="INTERNET">Frank_Dawson@Lotus.com</email>
</vCard>

The following is an example of a vCard that includes a photo element as inline binary content.

<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE vCard PUBLIC "-//IETF//DTD vCard v3.0//EN">
<vCard version="3.0">
   <fn>Frank Dawson</fn>
   <n>
      <family>Dawson</family>
      <given>Frank</given>
   </n>
   <photo img.type="JPEG"><b64bin>MICAjCCAdOgAwIBAgICBEUwDQ
   EEBoAwdzELMAkGA1UEBhMCVVMxLDAqBgNVBAoTI05ldHNjYXB1ENvcnBvcg==</b64bin></photo>
</vCard>
4.4 vCard with an agent element

The following is an example of a vCard that includes an agent element. The content of the agent element is another vCard.

```xml
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE vCard PUBLIC "-//IETF//DTD vCard v3.0//EN">
<vCard
    version="3.0"
    prodid="-//HandGen//NONSGML vGen v1.0//EN">
    <fn>Frank Dawson</fn>
    <n>  <family>Dawson</family>
        <given>Frank</given></n>
    <tel tel.type="WORK MSG">+1.617.693.8728</tel>
    <agent>
        <vCard
            version="3.0"
            prodid="-//HandGen//NONSGML vGen v1.0//EN">
            <fn>Kathie Collins</fn>
            <n>  <family>Collins</family>
                <given>Kathie</given></n>
            <tel tel.type="WORK MSG">+1.617.693-5660</tel>
            <email email.type="INTERNET">Kathie_Collins@Lotus.com</email>
        </vCard></agent>
    <email email.type="INTERNET">Frank_Dawson@Lotus.com</email>
</vCard>
```

4.5 Document with multiple vCards

The following is an example of a vCard document that includes more than one vCard.

```xml
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE vCard PUBLIC "-//IETF//DTD vCard v3.0//EN">
<vCardSet name="Mailing List">
    <vCard version="3.0">
        <fn>John Smith</fn>
        <n>  <family>Smith</family>
            <given>John</given></n>
        <email email.type="INTERNET">jsmith@host.com</email>
    </vCard>
    <vCard version="3.0">
        <fn>Fred Stone</fn>
        <n>  <family>Stone</family>
            <given>Fred</given></n>
        <email email.type="INTERNET">fstone@host1.com</email>
    </vCard>
</vCardSet>
```

4.6 Document utilizing vCard namespace

The following is an example of a XML document that declares the vCard namespace as it’s default namespace.
<?xml version="1.0" encoding="UTF-8"?>

  <fn>Frank Dawson</fn>
  <n>
    <family>Dawson</family>
    <given>Frank</given>
  </n>
  <email email.type="INTERNET">fdawson@host1.com</email>
</vCard>

The following is an example of a XML document that includes elements from the vCard namespace.

<?xml version="1.0" encoding="UTF-8"?>

    xmlns:pdi="http://pdi.org/schema">
  <vcf:fn>John Smith</vcf:fn>
  <vcf:tel tel.type="WORK">+1-919-555-1234</vcf:tel>
  <pdi:idnum>1234567</pdi:idnum>
  <pdi:usage>999.99</pdi:usage>
</x>

4.7 XML document reference to a non-XML vCard

The following is an example of a XML document with a proper reference to a non-XML entity containing a vCard object in the format defined by [VCARD]. This example shows how existing vCard objects can be integrated into XML documents using the XML structure defined in this document.

<?xml version="1.0" encoding="UTF-8"?>

<!DOCTYPE loanappl SYSTEM "http://host.finance.com/loanappl.dtd" [
  <!ENTITY fdawson SYSTEM "http://fdawson.com/myvcard.vcf" NDATA vCard>
]
<!NOTATION vCard PUBLIC "-//IETF//NOTATION vCard version 3.0//EN">

<loan>
  <pd vcard=fdawson/>
  <acct name=CFCU id="http://www.cfu.org">01234-56789</acct>
  <amt need="immediate">$1,000,000</amt>
</loan>

5. Namespace

[NSPACE] defines "XML namespaces" to be a collection of names, identified by a URI, which are used in XML documents as element types and attribute names. XML namespaces allow multiple markup vocabulary in a single document. Considering the utility of the vCard properties
in other applications, it is important for the vCard XML DTD to define a namespace for the vCard element types.

This memo includes the definition of both a qualified name for the vCard namespace and also a default namespace. The namespace declaration is specified by attributes on the "vCard" element. The default namespace is specified with the "xmlns" attribute and the qualified name for the vCard namespace is specified with the "xmlns:vcf" attribute.

The default namespace attribute is useful in XML documents that are based on the vCard document types. The qualified name for the vCard namespace is useful in XML documents that partially consist of vCard elements types but also consist of element types from other schemas.

The following is an example of the a vCard namespace declaration using the qualified namespace:

```xml
<?xml version="1.0" encoding="UTF-8"?>

<!-- Remainder of the XML document, each vCard element prefaced -->
<!-- with the "vcf:" prefix... -->
</vcf:vCard>
```

The following is an example of a vCard namespace declaration using the default namespace:

```xml
<?xml version="1.0" encoding="UTF-8"?>

<!-- Remainder of the XML document, each vCard element prefaced -->
<!-- with the "vcf:" prefix... -->
</x>
```

6. Acknowledgments

The following have participated in the drafting and discussion of this memo:

Scott Boag, Dean Burton, Charles Goldfarb, Alex Hoppman, Sean McGrath, Noah Mendelsohn, Thomas Rowe

7. Security Considerations

Security issues are not currently discussed in this memo.
8. Bibliography


9. Author’s Address

The following address information is provided in a vCard XML DTD electronic business card, format.

<vCard
    version="3.0"
    prodid="-//HandGen//NONSGML vGen v1.0//EN">
    <fn>Frank Dawson</fn>
    <n>
        <family>Dawson</family>
        <given>Frank</given>
    </n>
    <org><orgname>Lotus Development Corporation</orgname></org>
    <adr adr.type="WORK POSTAL PARCEL">
        <street>6544 Battleford Drive</street>
        <locality>Raleigh</locality>
        <region>NC</region>
        <pcode>27613-3502</pcode>
        <countryUSA</country>
    </adr>
    <tel tel.type="PREF WORK MSG">+1-617-693-8728</tel>
    <tel tel.type="WORK MSG">+1-919-676-9515</tel>
    <email email.type="PREF INTERNET">Frank_Dawson@Lotus.com</email>
    <email email.type="INTERNET">fdawson@earthlink.net</email>
</vCard>
<vCard
    version="3.0"
    prodid="-//HandGen//NONSGML vGen v1.0//EN">
  <fn>Paul Hoffman</fn>
  <n>
    <family>Hoffman</family>
    <given>Paul</given>
  </n>
  <org><orgname>Internet Mail Consortium</orgname></org>
  <adr adr.type="WORK POSTAL PARCEL">
    <street>127 Segre Place</street>
    <locality>Santa Cruz</locality>
    <region>CA</region>
    <pcode>95060</pcode>
    <country>US</country>
  </adr>
  <tel tel.type="WORK MSG">+1-408-426-9827</tel>
  <email email.type="INTERNET">phoffman@imc.org</email>
</vCard>

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